| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/072,784 | 05/06/1998 | BARIN GEOFFRY HASKELL | | 6905 |

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KENYON & KENYON
1500 K STREET, N.W., SUITE 700
WASHINGTON, DC   20005

| EXAMINER |
|---|
| CHEN, WENPENG |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2624 | |

DATE MAILED: 06/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

| Application No. | Applicant(s) |
|---|---|
| 09/072,784 | HASKELL ET AL. |
| Examiner | Art Unit |
| Wenpeng Chen | 2624 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>05 March 2002</u>.

2a)☐ This action is **FINAL**.　　2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1-44</u> is/are pending in the application.

　　4a) Of the above claim(s) <u>1-28,31-33 and 36-38</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>29-30, 34-35, 39-44</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

　　If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____ .

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

　　a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4)☐ Interview Summary (PTO-413) Paper No(s). _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: .

## *Examiner's responses to Applicant's remark*

1.    Applicants' arguments filed on 3/5/2002 have been fully considered. Applicant's

arguments with respect to claims 29-30 and 34-35 have been considered but are moot in view of

the new ground(s) of rejection.

## *Claim Rejections - 35 USC § 102*

2.    The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States

before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the

requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3.    Claims 39-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki et al.

(US patent 6,097,842.)

    For Claim 39, Suzuki teaches a method of prioritizing encoded video data stream, the

method comprising:

    -- identifying a video object (VO) from a video data; (Fig. 32)

    -- coding time instances of video object as a plurality of coded object planes (VOPs);

(Fig. 32)

-- assigning each of the VOPs to one of a plurality of video object layers (VOLs) for the

video object based on information content of the VOPs; (Fig. 32)

-- assigning priorities to video object layers (VOL); (column 31, lines 9-27; The

video_object_layer_id is assigned to each layer as lower layer or upper layer.)

-- transmitting each VOL by: (1) transmitting an identifier of the VOL's priority and (2)

transmitting VOPs of the VOL. (column 31, line 29 to column 33, line 49; Figs. 32-37; column

31, lines 9-27 and 47-50; The video_object_layer_id is transmitted.)

For Claim 40, Suzuki further teaches:

-- a flag, having a length of one bit that, when set to "1" indicates that priority is specified

for the VOL; (column 31, lines 41-46; The one-bit flag scalability indicates whether priority is

set or not.)

-- a field, having a length of three bits, taking value between 1 and 7, where 1 represents

a highest priority and 7 represents a lowest priority. (column 31, lines 9-27; The number of

scalable layers can be greater than 3. Therefore, Suzuki also teaches a case that has 7 scalable

layers. For the case, 3 bits are needed for specifying video_object_layer_id.)


*Claim Rejections - 35 USC § 103*


4.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section

102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject

matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.      Claims 34-35 and 39-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (US patent 6,097,842 cited previously) in view of Chang et al. (US patent 6,025,877 cited previously.)

Suzuki teaches a method of prioritizing encoded video data stream, the method comprising:

        -- identifying a video object (VO) from a video data; (Fig. 32)

        -- coding time instances of video object as a plurality of coded object planes (VOPs); (Fig. 32)

        -- assigning each of the VOPs to one of a plurality of video object layers (VOLs) for the video object based on information content of the VOPs; (Fig. 32)

        -- assigning priorities to video object layers (VOL) associated with the video data stream; (column 31, lines 9-27; The video_object_layer_id is assigned to each layer as lower layer or upper layer.)

        -- adding priority data for each video object layer to the video streams; (column 31, lines 9-27 and 47-50; The video_object_layer_id is transmitted. It indicates that priority data are added to the streams.)

        -- wherein the indication of the priority of the VOL is optional; (column 31, lines 41-46; The one-bit flag scalability indicates whether priority is set or not.)

-- transmitting each VOL by: (1) transmitting an identifier of the VOL's priority and (2)

transmitting VOPs of the VOL; (column 31, line 29 to column 33, line 49; Figs. 32-37; column

31, lines 9-27 and 47-50; The video_object_layer_id is transmitted.)

-- a flag, having a length of one bit that, when set to "1" indicates that priority is specified

for the VOL; (column 31, lines 41-46; The one-bit flag scalability indicates whether priority is

set or not.)

-- a field, having a length of three bits, taking value between 1 and 7, where 1 represents

a highest priority and 7 represents a lowest priority. (column 31, lines 9-27; The number of

scalable layers can be greater than 3. Therefore, Suzuki also teaches a case that has 7 scalable

layers. For the case, 3 bits are needed for specifying video_object_layer_id.)

However, Suzuki does not teach the transmitting step recited in Claims 34 and 39.

Chang teaches a method of encoding a video data stream comprising the steps of:

-- assigning a priority to VOL data for the case there is only one single VOL of each

video object; (Fig. 2, element 21; column 3, lines 10-26)

-- wherein information related to the single VOL data having a high priority is

transmitted before information related to VOL data having a low priority; (column 3, lines 57-

67)

-- (a) the priority data identifies which VOL layer may be discarded in the event of (a1)

limited memory or processor resources, (a2) channel errors and (b) determining whether

transmission conditions permit transmission of all VOLs of the video object; (column 3, lines 32-

40, 58-64; Fig. 5; Fig. 5 teaches to transmit parts of information according to the priority and

according to various conditions. A low current transmission speed is an indicator of channel

congestion that causes channel error. The transmission speed in a network assigned to the system

is varied. When the speed is reduced, the channel bandwidth is lost. It is also representing a

limitation to the overall process resource of the receiving part. )

- if, not, discarding a lowest priority VOL and transmitting remaining VOL data. (

As shown in Fig. 5, Chang teaches a case that the (TxSetSize + ObjSize(lowest priority))

becomes larger than egs. In that case the lowest priority VOL is discarded.)

It is desirable to provide high quality of video services. It would have been obvious to

one of ordinary skill in the art, at the time of the invention, to apply Chang's teaching to transmit

Suzuki's VOLs and priority data to a decoder according to the assigned priority of each VOL,

because the combination proves scalable transmission to minimize the effect variable

transmission speed for optimizing the quality of transmitted data.

For Claim 44, both Suzuki and Chang teach a method of decoding encoded video data

stream generated in their respective coding method. (Fig. 2 of Chang; Fig. 27 of Suzuki) As

discussed above, the priority data identifies which VOL layer may be discarded in the event of

limited memory or processor resources in the coding process, the combination also meets the

limitation of the method of decoding recited in Claim 44.

*Conclusion*

6.     Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Wenpeng Chen whose telephone number is 703 306-2796. The

examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David K Moore can be reached on 703 308-7452. The fax phone numbers for the

organization where this application or proceeding is assigned are 703-872-9314 for regular

communications and 703-872-9314 for After Final communications. TC 2600's customer service

number is 703-306-0377.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703 305-4700.


                                                        Wenpeng  Chen
                                                        Primary Examiner
                                                        Art Unit 2624

June 17, 2002